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Date: December 10, 2007 Name: Richard E. Stanley, Jr. Signature: /Richard E. Stanley, Jr./

Our Case No. 12170-3

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Larry D. Byrd

Serial No.: 10/680,532

Filing Date: October 6, 2003

For: LARGE BALE HANDLER

Examiner: Charles N. Greenhut

Group Art Unit No.: 3652

APPEAL BRIEF UNDER 37 C.F.R. § 41.37

Mail Stop: Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

Dear Sir:

In response to the final Office Action dated July 13, 2007, Applicant submits this Appeal Brief in support of the appeal of the final rejection of claims 1-15. It is respectfully submitted that the final rejection of claims 1-15 should be reversed for the following reasons.

I. Real Party in Interest

The real party in interest in the present appeal is Larry D. Byrd, the sole inventor of the application.

II. Related Appeals and Interferences

There are no other prior or pending appeals, interferences or judicial proceedings known by the undersigned or Larry D. Byrd "which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal."

III. Status of Claims

Claims 1-15 are currently pending and have been rejected.

Claims 16-21 have been cancelled.

The rejections of claims 1-15 are being appealed in this appeal.

IV. Status of Amendments

All claim amendments have been entered and considered by the Examiner.

V. Summary of Claimed Subject Matter

The claims are directed to a large bale handler (66) that is designed to lift and move two large agricultural bales (18, 19) at the rear end of a tractor (10). (Figures 6-7; ¶¶ [0014]-[0015]). The bales (18, 19) are supported by a tine (20) that extends rearward from a tractor connection (28). (Figures 1-2; ¶ [0015]). The two large bales (18, 19) are oriented in tandem with one (19) of the two large bales (18, 19) positioned behind the other large bale (18). (Figures 6-7; ¶ [0014]). The claims define the large bales (18, 19) as weighing about 800 pounds or more and having a longitudinal length of about 5 feet or more. (¶ [0002]).

VI. Ground of Rejection to be Reviewed on Appeal

The Examiner has rejected claims 1-8, 11-12 and 14-15 as being unpatentable under 35 U.S.C. § 103 over SAS (http://web.archive.org/web/20010201161100/http://www.sasforks.com/long.html) in view of Miller (U.S. Patent No. 5,580,208).

The Examiner has also rejected claims 9-10 and 13 as being unpatentable under

35 U.S.C. § 103 over SAS in view of Miller and further in view of Richey (U.S. Patent No. 3,472,528).

VII. Argument

The ultimate issue before the Board is whether claims 1-15 as presented would have been obvious in view of the prior art of record. In the final rejection dated July 13, 2007, the Examiner summarized his position as follows:

> [I]f claim 1 were to issue, the Applicant would be granted a right to exclude the public from putting the SAS forks on the rear of a tractor, a practice that would have been obvious, and was likely performed, prior to Applicant's invention. This would improperly exclude the public from an antecedent practice. [(Office Action at 6-7).]

Applicant respectfully submits that the Examiner's position, as reflected in this statement, is incorrect in several respects.

The first error in the Examiner's statement above is that the Examiner is mixing anticipation and obviousness, and appears to be tainting his analysis with the hypothetical idea that the forks disclosed in SAS might have been mounted on the rear of a tractor. Specifically, the Examiner argues that "putting the SAS forks on the rear of a tractor" "was likely performed." Similarly, the Examiner states that if claim 1 were allowed, the public would be excluded from "an antecedent practice." These statements are improper because there is no factual support in the record for the suggestion that anyone ever put the SAS forks on the rear of a tractor. The rejection before the Board is one of obviousness under § 103, not anticipation under § 102. As such, the Examiner appears to be relying upon supposition and conjecture about what may have been done, instead of on the facts in the record. Applicant respectfully submits that this analysis is improper.

The second error is that the Examiner's position does not account for Applicant's claim limitations that require the tines to be adapted to support and move two large bales. These claim limitations impart structural limitations to the claims and require that the tines be designed to move large agricultural bales made of crop materials, such as hay, straw, alfalfa, cane, cornstalks, millet and the like. (Specification at ¶ [0002]). The large bales recited in the claims are defined in Applicant's specification at ¶ [0002]. A common example of a large bale is one that is about 5.5 to 6 feet round and about 5 feet long and weighing about 800 to 3,000 lbs. It is undisputed that the SAS forks are not designed for moving large bales. Instead, the SAS forks are used for lifting automotive vehicles. The Examiner has cited no evidence that forks designed for lifting automotive vehicles are equivalent or interchangeable with tines designed for moving large agricultural bales. Thus, Applicant respectfully submits that even if one were to put the SAS forks on the rear of a tractor, such a result would still not satisfy all of the limitations of Applicant's claims.

The third error is the Examiner's conclusion that it would have been obvious to put the SAS forks on the rear of a tractor. The Examiner improperly relies upon a mere conclusion of obviousness without articulating an apparent reason why this would have been obvious. In the last final rejection of July 13, 2007, the Examiner's entire analysis of the obviousness question is a follows: "[i]t is well-known to put handling equipment on the rear of a tractor, as demonstrated, for example, by MILLER (Fig. 1-2, and other references of record (See also specification [0003])." (Office Action at 3). The Examiner previously argued that "[i]n this case, one may be motivated to modify SAS by placing the tines on the rear of a vehicle in order to free the front end for additional implements or provide an unobstructed view for the driver." (October 4, 2006 Office Action at 4-5; March 7, 2007 Office Action at 5-6). However, the Examiner appears to have backed away from this position since the Examiner has not repeated this alleged motivation in the last final rejection. In fact, the likely reason that the Examiner withdrew this previous theory of obviousness is because the previously cited reasons conflict with each other. (December 19, 2006 RCE at 7-8). The Examiner's prior reliance upon unsupported reasons of obviousness that conflict with each other, in addition to the Examiner's current reliance upon a mere conclusion, provides persuasive evidence that the Examiner is improperly relying upon impermissible hindsight to reconstruct Applicant's invention. This is not a proper basis for rejecting Applicant's claims.

Applicant respectfully submits that the Examiner is improperly relying upon a hindsight reconstruction of Applicant's claims as the basis for the present rejections. Moreover, as explained below, the basis for the Examiner's obviousness rejections fails to disclose all of the limitations of Applicant's claims.

Applicant has carefully considered the Examiner's comments. However, Applicant respectfully submits that the Examiner is improperly relying upon a hindsight reconstruction of Applicant's claims as the basis for the present rejections. The Supreme Court has repeatedly emphasized that it is improper for an Examiner to reject an applicant's claims based upon unsupported, after-the-fact reasoning. *KSR Int'l Co. v. Teleflex Inc.*, 82 USPQ2d 1385, 1397 (U.S. 2007) ("A factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning."); *Graham v. John Deere Co. of Kansas City*, 383 U.S. 1, 36 (1966) (warning against a "temptation to read into the prior art the teachings of the invention in issue" and instructing courts to "guard against slipping into the use of hindsight."); *see also* MPEP § 2142 ("The tendency to resort to 'hindsight' based upon applicant's disclosure is often difficult to avoid due to the very nature of the examination process. However, impermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art.").

Hindsight reasoning is prohibited by 35 U.S.C § 103(a) which requires an examiner to consider the patentability of the claimed subject matter "as a whole." Likewise, 35 U.S.C. § 103(a) requires that "[p]atentability shall not be negatived by the manner in which the invention was made." The Federal Circuit has explained that the ultimate question under 35 U.S.C. § 103 is "whether the claimed invention *as a whole* would have been obvious," "not whether the differences *themselves* [between the prior art and the claimed invention] would have been obvious." *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1537 (Fed. Cir. 1983) (emphasis in original); *see also Schenk v. Norton Corp.*, 713 F.2d 782, 785 (Fed. Cir. 1983).

In order to support an obviousness rejection, the Supreme Court requires the examiner to identify "an apparent reason to combine the known elements in the fashion claimed." *KSR*, 82 USPQ2d at 1396. As noted by the Federal Circuit, the fact that "all elements of an invention may have been old (the normal situation), or some old and some new, or all new, is however, simply irrelevant. Virtually all inventions are combinations of old elements. A court must consider what the prior art as a whole would have suggested to one skilled in the art." *Environmental Designs, Ltd. v. Union Oil Co. of Cal.*, 713 F.2d 693, 698 (Fed. Cir. 1983); *see also KSR*, 82 USPQ2d at 1396 ("a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently known in the prior art.").

"The 'as a whole' instruction in title 35 prevents evaluation of the invention part by part. Without this important requirement, an obviousness assessment might break an invention into its component parts (A + B + C), then find a prior art reference containing A, another containing B, and another containing C, and on that basis alone declare the invention obvious. This form of hindsight reasoning, using the invention as a roadmap to find its prior art components, would discount the value of combining various existing features or principles in a new way to achieve a new result—often the very definition of invention." *Ruiz v. A.B. Chance Co.*, 357 F.3d 1270, 1275 (Fed. Cir. 2004); *see also Princeton Biochemicals, Inc. v. Beckman Coulter*, 411 F.3d 1332, 1337 (Fed. Cir. 2005) ("This line of reasoning would import hindsight into the obviousness determination.").

Contrary to the admonitions of the Supreme Court, the Federal Circuit and the MPEP, Applicant contends that the Examiner has engaged in impermissible hindsight to construct Applicant's invention piece-by-piece from the prior art using Applicant's claims as a roadmap. Like the example given in *Ruiz v. A.B. Chance*, the Examiner has broken Applicant's claims into component parts A and B to declare that the claims are obvious. The Examiner argues that SAS discloses forks extending the length of two large bales (component A). The Examiner also argues that Miller discloses handling equipment on the rear of a tractor (component B). Using hindsight and the Applicant's claims as a roadmap, the Examiner has combined components A and B (SAS and Miller) in an effort to reconstruct Applicant's claims.

In order to make out a case of obviousness, an articulated reasoning is required explaining why one of ordinary skill would have combined the cited references. The obviousness question in this case is not whether it was known to extend 8-15 foot forks from the front of a loader (SAS) or whether it was known to put handling equipment on the rear of a tractor (Miller). The proper question is whether it would have been obvious to put tines on the rear of a vehicle for moving large agricultural bales, where the tines extend the length of two large bales. The Examiner has not provided any articulated reason for why this would have been obvious. Instead, the Examiner has independently found two separate pieces of prior art and simply concluded that it would have been obvious to combine them. Contrary to the law, the Examiner has "gleaned" this combination "only from the applicant's disclosure."

However, the motivation to combine SAS and Miller in the manner that the Examiner has attempted is lacking. The Examiner provides no explanation for why one of skill in the art would combine SAS and Miller together as the Examiner has done to achieve applicant's claimed invention. It is undisputed that the forks in SAS are attached to the front end of a loader. This is the exact opposite of what Applicant has claimed. Applicant has claimed that the tines "extend rearward from said tractor connection." These are opposite ends of the vehicle. One of ordinary skill in the art would not think to move the forks disclosed in SAS to the rear end of a tractor. Indeed, if it were so obvious to extend the forks from the rear end of a vehicle, it begs the question why SAS did not do it. SAS relates to using forks to lift automobiles, not large bales. If it was obvious to extend tines from the rear end of a lifting vehicle, SAS presumably could have done this to lift automobiles from behind the loader instead of in front of the loader. However, SAS did not do this. There are numerous reasons why SAS did not extend its forks from the rear of the loader. First, it is conventional to extend the types of forks disclosed in SAS from the front end of the loader. It would be *unconventional* to extend the forks from the rear of the loader. Second, it is more difficult to see behind a loader or tractor. It is also more difficult to position the tines under the object to be lifted since the loader or tractor must be driven in reverse while positioning the tines. By contrast, the forks in SAS are positioned under the vehicle by merely driving forward. Third, weight distribution must be considered since changing the lifting location from the front end to the rear end of a lifting vehicle dramatically changes the overall weight distribution. In fact, it is unlikely that the weight distribution of the vehicles in either SAS or Miller would support lifting two large bales at the rear end of the vehicles disclosed therein. The examiner is essentially arguing that it would have been obvious to do the opposite of what is disclosed in the prior art. This is improper hindsight.

The Examiner's argument is also improper because it would change the principle of operation of SAS. MPEP § 2143.01 at 2100-141. SAS is directed to loaders and the like that are particularly designed to lift from the front end of the vehicle. The vehicles that are shown in SAS could not even be readily modified to attach an implement to the rear of the vehicle. Thus, there is no factual basis to conclude that one of skill in the art would have been motivated by SAS to move the forks of SAS to the opposite end of the vehicle. This conclusion ignores the numerous considerations involved in mounting implements on the front and rear ends of a vehicle.

Even if one of ordinary skill in the art were to put the SAS forks on the rear of a vehicle, Applicant submits that this would still not disclose Applicant's claim limitations. Specifically, claim 1 recites "said tine further extending along a length of two large bales thereby supporting a weight of said two bales and permitting said tractor to move said two bales from place to place, each of said two large bales weighing about 800 pounds or more and having a longitudinal length about 5 feet or more." Claim 14 recites "said two tines are adapted to support two large bales oriented in tandem with one of said two large bales behind another of said two large bales, each of said two large bales weighing about 800 pounds or more and having a longitudinal length about 5 feet or more." These limitations impart structural limits on the claims which are not disclosed by the forks in SAS. It is well-established that functional limitations are "perfectly acceptable" when they "set definite boundaries on the patent protection sought." *In re Barr*, 444 F.2d 588 (CCPA 1971). It is undisputed that the forks disclosed in SAS are designed for lifting automotive vehicles in salvage yards and the like. There is no disclosure that the SAS forks would even work for lifting large agricultural bales. In fact, Mr. Byrd has submitted evidence that in his opinion the SAS forks would not work for lifting large agricultural bales. (June 7, 2007 Byrd Declaration at ¶¶ 2-5). Applicant's claim limitations are not merely intended use limitations because the claimed invention is specifically directed to a new implement that is designed to lift two large agricultural bales from the rear end of a tractor. These limitations clearly "set definite boundaries on the patent protection sought." SAS does not disclose these limitations because the SAS forks are not designed to lift large agricultural bales, and as noted above, the forks in SAS extend from the front end of the vehicle, not the rear end.

In addition to the above differences between the prior art and Applicant's claims, Applicant has also submitted evidence of long felt need, disbelief by people of skill in the art, and commercial success. (June 12, 2006 Byrd Declaration at ¶¶ 3, 8; specification at ¶¶ [0003]-[0009] and [0021]-[0029]). These secondary considerations of nonobviousness weigh against a conclusion that the invention would have been obvious. Mr. Byrd's June 12, 2006 declaration sets forth specific facts about how he developed the claimed invention. Mr. Byrd is clearly one of skill in the art. He has over 25 years of experience with the subject matter of his application. In particular, he considered the problem of moving large bales for four years and searched for a large bale handler in the marketplace. (June 12, 2006 Byrd Declaration at ¶ 3). In his own words, "there just wasn't one to be had." (June 12, 2006 Byrd Declaration at ¶ 3). When he approached several shops about making the large bale handler he developed, he was repeatedly told "[i]t will not work." (June 12, 2006 Byrd Declaration at ¶ 3). Then, after he did the work to make one himself and proved the naysayers wrong, his competition copied the bale handler he developed. (June 12, 2006 Byrd Declaration at ¶ 8). It is respectfully submitted that this evidence of secondary considerations must be given proper weight in the obviousness analysis. *In re Sullivan*, 84 USPQ2d 1034, 1040 (Fed. Cir. 2007) ("[W]hen an applicant puts forth relevant rebuttal evidence, as it did here, the Board must consider such evidence. The claimed composition cannot be held to have been obvious if competent evidence rebuts the prima facie case of obviousness. By failing to consider the submitted evidence, the Board thus committed error.").

VIII. Conclusion

Applicant respectfully submits that claims 1-15 are allowable over the prior art of record. As argued above, Applicant submits that claims 1-15 are not obvious over the Examiner's proposed combination of SAS and Miller. Accordingly, Applicant requests that the Examiner's rejection of claims 1-15 be reversed and Applicant's application be allowed as presented.

Respectfully submitted,

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Claims Appendix

1. (previously presented) A large bale handler, comprising: a tractor connection, and a tine attached to said tractor connection, said tine being formed from tubing and extending along a longitudinal axis of a tractor connected to said tractor connection, and said tine further extending along a length of two large bales thereby supporting a weight of said two bales and permitting said tractor to move said two bales from place to place, each of said two large bales weighing about 800 pounds or more and having a longitudinal length about 5 feet or more, wherein said tine extends rearward from said tractor connection.

2. (original) The large bale handler according to claim 1, wherein said tine extends more than 6.5 feet from said tractor connection.

3. (original) The large bale handler according to claim 1, wherein said tine extends at least 9 feet from said tractor connection.

4. (original) The large bale handler according to claim 1, wherein said tine extends about 10 feet from said tractor connection.

5. (original) The large bale handler according to claim 1, wherein each of said two large bales extends about 5 feet along said tine and each of said two large bales weighs about 1,000 pounds.

6. (original) The large bale handler according to claim 1, wherein said tractor connection comprises three connection points adapted to be connected to a three-point hitch on a rear of said tractor, and further comprising at least two of said tines.

7. (original) The large bale handler according to claim 1, wherein said tine is attached to a bottom of said tractor connection, each of said two large bales thereby

being loadable by sliding said tine below each of said two large bales along a ground surface.

8. (original) The large bale handler according to claim 1, further comprising a tine support, said tine support being attached to said tine and extending adjacent said tine, wherein said tine support extends along only a portion of a length of said tine.

9. (original) The large bale handler according to claim 1, wherein said tractor connection comprises a first plate, a second plate, and a third plate thereby forming three plates extending parallel to each other, wherein a first space is formed between said first plate and said second plate adapted for a category 2 hitch, and wherein a second space is formed between said second plate and said third plate adapted for a category 3 hitch.

10. (previously presented) The large bale handler according to claim 9, wherein said three plates extend forward from a support beam of said tractor connection, wherein said first space and said second space extend downward thereby being adapted to be connected to a quick-attach hitch.

11. (original) The large bale handler according to claim 1, wherein said tractor connection comprises three connection points adapted to be connected to a three-point hitch on a rear of said tractor, and further comprising at least two of said tines; wherein said tines extend more than 6.5 feet from said tractor connection; wherein each of said two large bales weighs about 1,000 pounds; and wherein said tines are attached to a bottom of said tractor connection, each of said two large bales thereby being loadable by sliding said tines below each of said two large bales along a ground surface.

12. (original) The large bale handler according to claim 11, wherein said tines extend at least 9 feet from said tractor connection; and further comprising tine supports, one of said tine supports being attached to each of said tines and extending adjacent

said tines, wherein said tine supports extend along only a portion of a length of said tines.

13. (original) The large bale handler according to claim 12, wherein said tines extend about 10 feet from said tractor connection; wherein said tractor connection comprises a first plate, a second plate, and a third plate thereby forming three plates extending parallel to each other, wherein a first space is formed between said first plate and said second plate adapted for a category 2 hitch, and wherein a second space is formed between said second plate and said third plate adapted for a category 3 hitch; and wherein said three plates extend forward from a support beam of said tractor connection, wherein said first space and said second space extend downward thereby being adapted to be connected to a quick-attach hitch.

14. (previously presented) A large bale handler, comprising: a tractor connection, a support beam attached to said tractor connection and extending along a width, two tines formed from tubing attached to opposing ends of said support beam, said two tines extending away from said tractor connection generally parallel to each other, wherein said two tines are adapted to support two large bales oriented in tandem with one of said two large bales behind another of said two large bales, each of said two large bales weighing about 800 pounds or more and having a longitudinal length about 5 feet or more, wherein said two tines extend rearward from said tractor connection.

15. (original) The large bale handler according to claim 14, wherein said tractor connection comprises three connection points adapted to be connected to a three-point hitch on a rear of said tractor; wherein said tines are attached to a bottom of said tractor connection, each of said two large bales thereby being loadable by sliding said tines below each of said two large bales along a ground surface; and wherein said tines extend at least 9 feet from said tractor connection.

16-21. (cancelled).

Evidence Appendix

Applicant attaches hereto the following evidence:

(1) Prior art SAS reference relied upon by the Examiner (http://web.archive.org /web/20010201161100/http://www.sasforks.com/long.html).

(2) Declaration of Larry D. Byrd dated June 12, 2006.

(3) Declaration of Larry D. Byrd dated June 7, 2007.

Related Proceedings Appendix

There are no other prior or pending appeals, interferences or judicial proceedings known by the undersigned or Larry D. Byrd "which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal." As such, there are no "decisions rendered by a court or the Board in any proceeding" to submit.

Fastest Forks in the World!™

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Applications
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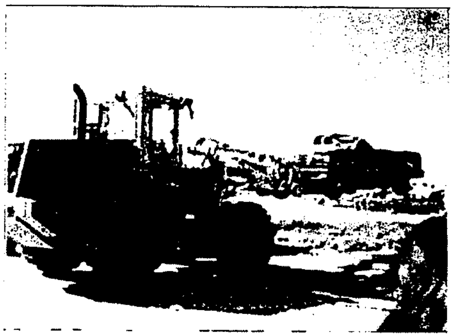
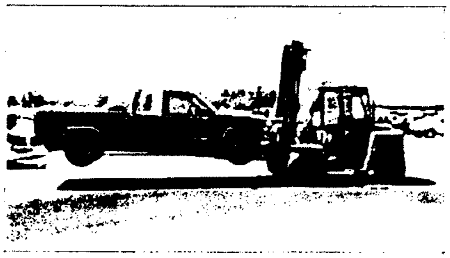
Long Forks

S.A.S. of Luxemburg, Ltd. has been manufacturing long forks for moving vehicles in salvage yards, auto recyclers, and auto pools since 1972. We have first hand knowledge of the needs of the users and the structural demands on the forks in this type of environment. We offer the best forks in the industry, backed by the best warranty. Long forks are designed to fit your specific application and usage patterns. We consider the type of load, the frequency of loads, the terrain of your facility, the type of machine and other factors.

We make SAS FORKSTM with both solid steel and tubular blade configurations.

SOLID STEEL blades are the standard premium design offering superior life and strength. Solid steel blades are the preferred blades for most applications from 5' to 17'.


Case Loader with 15' Solid Steel SAS FORKS�"


Fork Truck with 15' Tubular SAS FORKS�

TUBULAR STEEL blades are of a hollow design which allows the fork assembly to be lighter weight which may be desirable in situations where the machine capacity is smaller and also this design can be produced at a lower price. Typical lengths are 8' to 15'.

10' to 17' Custom FORKS for rubber tired loaders and fork lift trucks.

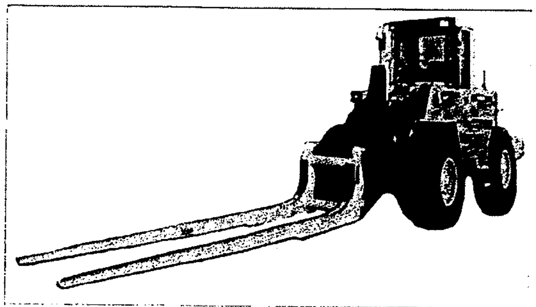
For Handling Cars and Light Trucks: Fast / Safely / Without Damage

Designed by professionals for professionals

Designed specifically for use in the auto and truck recycling industry.

S.A.S. of Luxemburg, Ltd. has been

manufacturing SAS FORKS� for use in salvage pools and salvage yards since 1972. Because of customer interest in the high quality forks we manufacture, and customer's varying needs, we manufacture forks in various sizes from 4' to 17'. Custom sizes and configurations can be made to fit your exact request and application. SAS FORKS� were designed specifically for safe and fast handling of cars and light trucks. SAS FORKS� have solved many of the problems that salvage yard and insurance pools face in handling salvage vehicles.


Volvo VME L90 with 15' SAS FORKS™

---------General Information on SAS FORKS�----------

Safety

1. No bounce.
2. Holds cars from sliding left to right by having a fixed distance between the forks.
3. Designed with no weak points�full floating forks.
4. Not a single failure since introduced in 1977.
5. Over 775,000 documented lifts on one set of forks and still in service.
6. Properly used, 15' SAS FORKS� will not damage cars or light trucks when picked up.

Fast

1. Rounded or chisel fork blade point for getting under cars and light trucks.
2. Narrow blades for fast and easy entry and exit.

Design

1. Replaceable skid pads for blades.
2. Replaceable skid pads for carriage assembly (shoe).
3. Replaceable blades.
4. For use with quick coupler or pin to pin coupling

Delivery

- Usually 2 to 4 weeks from date of order.
- FOB Luxemburg, WI. USA C. Freight and Sales Tax costs are extra, and NOT included in the SAS FORKS� price.

-----------Information on 15' SAS FORKS�-----------

APPLICATION OF 15' SAS FORKS�

Designed for auto pools and salvage yards for the safe, fast handling of all vehicles whether damaged or not.

RECOMMENDED USE OF 15' SAS FORKS�

Picking up vehicles from front to back, and moving of vehicles within your lot quickly and safely.

1. Unloading incoming car haulers to get them back on the road sooner.
2. Removing them from your incoming drop zone to your holding area.
3. Moving them from the holding area to the sale area.
4. Organizing your sale area neatly.

5. Loading car hauler and transports quickly and safely.

ESTIMATED TIME SAVINGS

Vehicles can be picked up, moved and spotted with 15' forks in less than one-tenth of the time it would take you to do this job with a wrecker. Thus a yard managed with 15' forks can handle your present volume per day with one-quarter of the number of yard employees.

DAMAGE FREE HANDLING WITH 15' SAS FORKS�

The vehicles you are handling have the most value to the rebuilder or recycler if it has no after collision damage. Moving and spotting of vehicles, especially the late model salvage, with wreckers results in a high loss of front, rear and side parts because of the crudeness of wreckers and their operators. Also, keep in mind today's vehicles with their rubber bumpers, sheet metal reinforcements, plastic panels, etc. Forks less than 15' are not recommended because they do not reach to the rear suspension. Placement of lift pressure points on the vehicle are important so you don't damage the undercarriage components of vehicles. Ten foot and 12' forks tips don't reach to the rear suspension and damage floor pans, gas tanks, rocker panels, and box sides when lifting vehicles. The handling of vehicles with 15' SAS FORKS� when done properly will result in absolutely no damage!!! SAS FORKS�

MAINTENANCE

The forks are maintenance free. Should the blades be damaged or worn they may be individually replaced. The shoes and the blades have wear plates installed from the factory. Replacement wear plates are easily installed in the field.

LENGTH

We can make ANY size you prefer for YOUR operation. (4' to 17') For picking up vehicles from front to back we recommend 15' SAS FORKS�

OUTSIDE WIDTH

We can make ANY size you prefer for YOUR operation. For 15' SAS FORKS� the width is 42". When picking up vehicles from front to back, this width of the SAS FORKS� will fit under all standard production cars, both domestic and foreign.

RECOMMENDED LOADER SIZE

For lifting cars and light trucks with 15' SAS FORKS� a loader of a 2 1/2 to 3 yard capacity will work fine. The loader should have a four point bucket attachment design. A three point bucket attachment design (center dump cylinder) will also work but is slightly more expensive for fork design and has lifting limitations above 9 feet. If you are considering buying a machine (Loader or Forklift) for moving vehicles and are considering purchasing SAS FORKS�, please contact us at 1-877-SAS-FORK before you purchase a machine. We can offer guidance in your selection of a machine that will best work for your needs.

METHOD OF MOUNTING

The forks are either direct coupled (pin to pin) or may be used in conjunction with "quick" couplers.

INSTALLATION

The installation is the responsibility of the owner, unless specifically quoted otherwise. Usual initial installation time for pin to pin mounting, excluding bucket removal is about 30 minutes. Fork assemblies with quick couplers install in only a matter of seconds.

PRODUCT QUALITY

Designed and marketed since 1977 without a single product failure.

LIMITED WARRANTY

Three year material and labor limited warranty on all parts of the fork assembly. No warranties are expressed or implied as to the fitness of the equipment that the forks are installed on. Detail of warranty terms in SAS FORKS� Operator Manual.

Who's Forks Should You Use and Why

Points of Comparison	15' SAS FORKS™	"L" Shaped Forks
Visibility	Excellent	Fair to Poor
Entry Under Vehicle		
Entry Thickness (4 inches from end)	1 1/2 inches	2 to 3 inches
Square Inches of Steel Pushing Under Vehicle	8 square inches (1 1/2"X3"X2 forks)	32 square inches (8"X2"X2 forks)
Ability to exit easily from vehicle		
Blade width	6 inches (3"X2 forks)	16inches (8"X2 forks)
Surface area to hold vehicle on forks	540 square inches (3"X15'X2 forks)	1,440 square inches (8"X15'X2 forks)
Bounce	None	Severe
Ability to Crush Cars	Yes	Very Limited
Warranty	3 Year Limited	Usually 1 Year or None
Adjustability	Fixed for Safety	Some Fixed/Some Adjustable
Wear Features		
Replaceable fork tip skid pads	Yes	Usually None
Replaceable shoe skid pads	Yes	Usually None
Replaceable fork blades	Yes	Usually Not
Lasting Ability	20 years and still going	Usually 3 years before repair or replacement
Expected life	20 years plus	3 years at 15,000 cars/year
Design	Specifically designed for this application in the auto salvage industry	Designed after forks used for handling pallets with 2' to 4' load centers
Torsional Strength	2 or 3 torque tubes to absorb any torsional loads	Usually no torsional design consideration given
Approximate Initial Cost	$3850 - $6850	$4000
Cost after 9 years	$3850 - 6850	$12000 plus down time
Special Features		
-Replaceable blades	Yes	Usually Not
-Breakaway welds for detection of improper of operator use	Yes	No

Myths about 15' Forks

Myth	Yes	No
Wide forks support cars better.		No
Adjustable forks work better and are more versatile.		No
Wide forks are stronger than narrow forks.		No
Handling of cars and trucks with 15' forks will usually damage the vehicle.		No
Broad siding cars with forks is a safe way to handle cars.		No
Entry and exit from under vehicles is easier with wide forks.		No

Truths about 15' Forks

1. Wide forks do not support cars and trucks better. The pick up points of cars and trucks are not smooth or flat. They are angled parts such as lower control arms and parts with uneven surfaces such as axles with shock absorber and torsion bar attachments. Thus, the width of the fork has nothing to do with supporting the vehicle better.

2. Adjustable forks, in our opinion, are very dangerous (for the application of moving cars and trucks). What happens in the work place is that adjustable forks tend to move together during daily operation, causing the load to become more tippy and unstable. Due to the difficulty of moving the forks apart, the operator rarely bothers to put the blades back into their proper position. Eventually, unless the operator moves the forks apart, you will wind up picking up cars and trucks with forks that are so close together, you may as well transport the vehicle with a single fork, a very dangerous thing to do.

3. Wide forks are not stronger. They are actually weaker, more prone to breaking and develop a tremendous amount of bounce. The sharp 90 degree bend in the wide forks make them prone to breaking at the bend. The long narrow SAS FORKS™ have been specifically designed for this application. The "J" shaped design with the full floating fork distributes the load uniformly to the loader carriage. They will lift heavier loads more times and do not bounce as you are transporting vehicles. These forks are harmonically de-tuned. One set has logged over 775,000 lifts.

4. Properly used 15' forks will never damage any auto or truck. Eviron, a division of Ford Motor Company, recently purchased a set of our forks to move their units! Not a likely move if our forks damaged their vehicles!

5. Broad siding cars and trucks damages drive shafts and if the vehicles slip on the forks, doors are damaged, making the vehicle worth less to a salvage buyer. Handling vehicles front-to-rear cannot (when done properly) damage a vehicle in any manner.

6. The wider the forks, the harder it is to get under a vehicle because you will hit more objects hanging downward. The narrower the forks, the fewer things you will hit during entry, and the fewer things to hold you on the forks upon exit.

Operator Manual

An operator manual for SAS FORKS™ has been developed to help in the training and optimal operation of SAS FORKS™ and your machine. This manual has been prepared specifically for picking up and moving cars and trucks. This comprehensive manual is provided at no additional cost when a set of SAS FORKS™ are purchased. Safe operation is imperative in the workplace and necessary to move vehicles safely without damage.

Call for a quote

Thank you for taking the time to review this information. If we can be of service, please call! If you are currently considering purchasing a machine (Loader or Forklift) to move vehicles PLEASE CALL ME BEFORE YOU PURCHASE ONE. I can offer you some advise on what type and what size machine will BEST work for you. Contact numbers below.

Sincerely,

Elmer Secker, Design Engineer and Vice President
S.A.S. of Luxemburg, Ltd.
E1039 Hwy 54
Luxemburg, WI 54217
Email: sales@sasforks.com
Phone: 877-SAS-FORK
Phone: 877-727-3675
Phone: 920-845-2307
Fax....: 920-845-2309

Applications | Bumpers | Long Forks | Short Forks | Machines | Home

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Date of Deposit: June 12, 2006

Case No. 12170-3

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:		)	
	Larry Byrd	)	
Serial No.:	10/680,532	)	Examiner: Charles N. Greenhut
Filing Date:	October 6, 2003	)	Group Art Unit No.: 3652
For:	LARGE BALE HANDLER	)	

DECLARATION UNDER 37 C.F.R. § 1.132

Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

Now comes Larry D. Byrd, the inventor of the above-identified patent application, who declares and states:

1. I have reviewed the Office Action dated January 12, 2006, in the above-identified patent application. My understanding is that the application has been rejected based on Blair (U.S. Patent No. 3,208,612); Vansickle (U.S. Patent No. 4,194,863); and Sutton (U.S. Patent No. 3,829,128). I have reviewed each of these patents in an effort to understand the Examiner's rejection of my application. However, after a careful review of Blair, Vansickle and Sutton, I respectfully disagree with the Examiner that these patents disclose my invention or that my invention would have been obvious from these patents. To support my position that my invention is new and not obvious, I make the following evidentiary statements.

2. I am the owner and operator of a farming and ranching operation in the area of Presho, South Dakota. I have been involved in this business since 1970. In my

operations I have used various types of bale handlers since 1975. I consider myself to be skilled in the art of bale handlers and am familiar with the types of bale handlers that are currently available and that have been available since 1960.

3. I needed a two bale fork that would get through a narrow gate that the tractor would squeeze through. I thought about it for four years and came up with the concept of an inline two bale fork for large round bales that weighed up to 3000 lbs. No one had one, no one made one - there just wasn't one to be had. I talked to several welding shops and the feedback was always the same. "It will not work." I knew it would work so I paid a shop to make one to my specifications. It worked ten times better than I ever dreamed. I use it for much more than just large round bales. It moves old cars, feed bunks, grain feeders, past bundles, panels, etc. I use it as a jack for big machinery, and even use it to move our garden shed and much more. I have tested it for 10,000 lbs. Please log onto www.balewizard.com for a video demonstration of it in action. You will even see some buffalo.

4. Blair's machine and the Bale Wizard are not even close to being similar. There are no parts that would interchange either by themselves or welded together. They do not look similar or operate similar. Blair's machine fits onto a ladder that is fitted to the front of a tractor. It lifts and hauls small square and round 50 to 100 lb. bales as shown in the drawing. The large round baler was not invented until 8 years after Blair's application. Mr. Veemeer invented the first one in 1971. See attachment. Byrd's Bale Wizard machine fits on the three point hitch and the rear of the tractor and loads two large bales going backwards. It has no moving parts as it is one solid piece. The Bale Wizard machine will not load Blair's small bales at all as they fall through the wider tines.

5. Vansickle's machine and the Bale Wizard are completely different. They do not look or operate similar. There are no parts that will interchange either before or after welded together. Vansickle's is fitted to a loader that is fitted to a tractor. It will only lift one bale as the drawing clearly shows and the application mentions "a hay bale" over twenty times. It has moving parts and a cylinder. You have to drive up to the bale, stop, and clamp the arm on to it from the sides. The Bale Wizard backs under two bales on the go.

6. Sutton's quick attach is not a machine of any kind. It is a device that is pinned to a three point hitch that makes it quicker to attach many different machines. We can use it or not use it to attach our Bale Wizard. We do not apply for or want any part of his very good invention. Like many others, we like attaching the Bale Wizard to it but it is certainly not necessary.

7. One could put all three - Blair, Vansickle and Sutton quick attach together and there would not be the slightest similarity to the Bale Wizard.

8. Someone is copying the Bale Wizard right now because of its growing popularity. I have been to hundreds of machinery dealers, and as to Blair's and Vansickle's machine, I can assure you that one would be hard pressed to find even one on anyone's lot. Neither were at all successful and did not sell well. Sutton's quick attach is very successful and every dealer sells them. We are not applying for any part of his.

9. I would be very happy if you would log on to www.balewizard.com and get a feel for what it does.

10. I have 70 plus dealers and have made over two hundred Bale Wizards. I have spent thousands pursuing this patent and would appreciate your inspection.

11. I state that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with knowledge that willful false statements are the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon.

Respectfully submitted,

Larry D. Byrd

Larry D. Byrd

CERTIFICATE OF TRANSMISSION UNDER 37 C.F.R. §1.8

I hereby certify that this correspondence, including recited attachments, is being electronically transmitted to the United States Patent and Trademark Office on the below date:

Date: June 7, 2007 Name: Richard E. Stanley, Jr. Signature: /Richard E. Stanley, Jr./

Case No. 12170-3

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)
)
Larry Byrd)
)
Serial No.: 10/680,532) Examiner: Charles N. Greenhut
)
Filing Date: October 6, 2003) Group Art Unit No.: 3652
)
For: LARGE BALE HANDLER)
)
)

DECLARATION UNDER 37 C.F.R. § 1.132

Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

Now comes Larry D. Byrd, the sole inventor of the above-identified patent application, who declares and states:

1. I have reviewed the final Office Action dated March 7, 2007, in the above-identified patent application. To support of my position that my invention is new and not obvious, I make the following evidentiary statements.

2. The SAS forks are made for handling cars and light trucks in salvage yards. There is no description that the SAS forks are designed for large round hay bales. In fact, the SAS forks will not work for bales without extensively redesigning them. In particular, they are made to fit a four point attachment on a front end loader. It

would require significant redesign work to fit the SAS forks on the rear end of a farm tractor on a three point hitch.

3. The width across the tines of the SAS forks is 3.5 feet. In contrast, the width across the tines of my bale fork is 4.5 feet. The width of my bale fork was specifically designed to provide a stable support for large hay bales without allowing the bales to fall through the tines. The width of the SAS forks is too narrow to slide under a 5 foot bale. Indeed, it would just push them because it would not clear the outside edges of the bale. If one were to put a bale on the SAS forks, the bale would likely roll off on hilly ground because the tines would not cradle the bale enough. In fact, SAS teaches that it is preferable to have narrower forks for lifting vehicles and also teaches that wider forks are weaker than SAS's narrow forks.

4. Furthermore, SAS would need to redesign the tips to work for bales. The SAS tines have tips like a pallet fork which are like a knife and would tear the twine or net wrap. We tested these kinds of tips and found that they also easily dig into the ground. The tips on my bale fork have diamond-shaped caps with the points located at the outside edges of the tines. Thus, there are no sharp edges that touch the bale. The diamond-shaped caps are also built on an angle with the tips slightly higher and with no sharp edges so as not to tear and dig. We did a lot of experimenting to develop these tips to work well on hay bales.

5. The parts of the SAS fork are not interchangeable with my bale fork either before or after being welded together. I called the manufacturer of the SAS forks and was quoted a price of $7000 for a 15 foot long fork. By contrast, the price of my bale wizard is only $1,100. It is unlikely that hay farmers would pay that much more. Indeed, the SAS forks would be even higher priced if they were reinvented for hay.

6. We spent a lot of time and money designing a great in-line two bale fork and it is certainly worthy of a patent. It was my idea and mine alone. I would appreciate due consideration of the facts set forth herein and reconsideration of my application. There are many types of implements that fit on the front end of loaders with a four point attachment. Similarly, there are many types of implements that fit on the rear end of farm tractors with a three point hitch. Miller's transporter which is primiarly made for loading dirt is an example. You can also put such things as fire wood, feed sacks, etc.

on it. It will not self load hay because the edge runs clear across for loading dirt and has no tines, therefore, it would just push bale. He would have to cut the bucket off and weld tines on it to ever get it to load hay. Of course, most implements that fit three point hitches will hook on to Richey's quick hitch. The fact that someone could reinvent and reweld old implements together with different parts to make them work for hay should not be a reason to deny a patent for the bale fork claimed in my application.

7. I state that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with knowledge that willful false statements are the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of this application or any patent issuing thereon.

Respectfully submitted,

Larry D. Byrd

Larry D. Byrd